

Geometry 10.6 Assignment: Equations of Circles (pp 636-640)

1. What is your name?

2. Match the equation of a circle with its description.

	Equation	Description
_____	$(x+2)^2 + (y-3)^2 = 4$	A. center (-3, 5), radius 4
_____	$(x-2)^2 + (y-5)^2 = 4$	B. center (-2, -3), radius 2
_____	$(x+3)^2 + (y-5)^2 = 16$	C. center (-2, 3), radius 2
_____	$(x+2)^2 + (y+3)^2 = 4$	D. center (2, -5), radius 2
_____	$(x+3)^2 + (y+5)^2 = 16$	E. center (-3, -5), radius 4
_____	$(x-2)^2 + (y+5)^2 = 4$	F. center (2, 5), radius 4

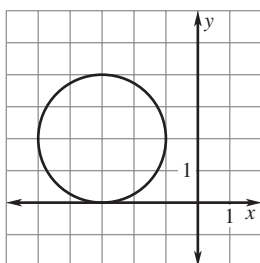
Give the center and radius of the circle.

3. $(x+1.5)^2 + (y-3.8)^2 = 1.44$

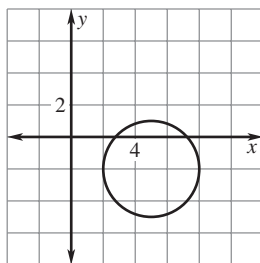
4. $\left(x + \frac{3}{5}\right)^2 + \left(y - \frac{1}{10}\right)^2 = \frac{9}{25}$

Give the coordinates of the center, the radius and the equation of the circle.

5.



6.



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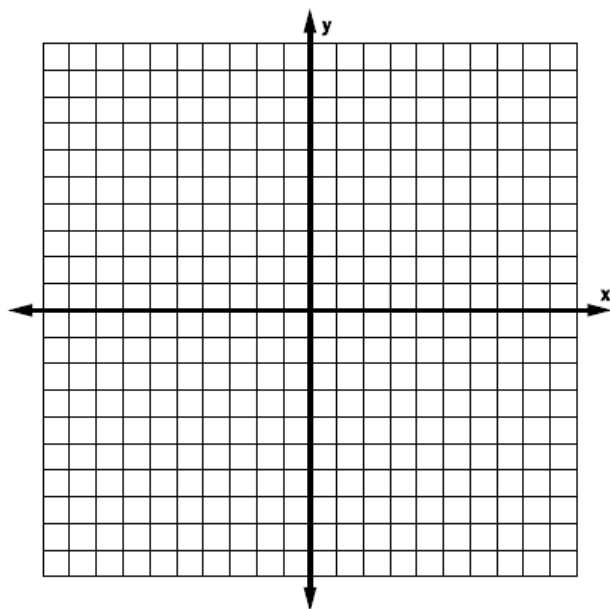
Write the standard equation of the circle with the given center and radius.

7. Center $(-3, 6)$, radius 7

8. Center $\left(\frac{7}{2}, \frac{5}{2}\right)$, radius 2

Graph the equation.

9. $(x - 3)^2 + (y + 4)^2 = 16$



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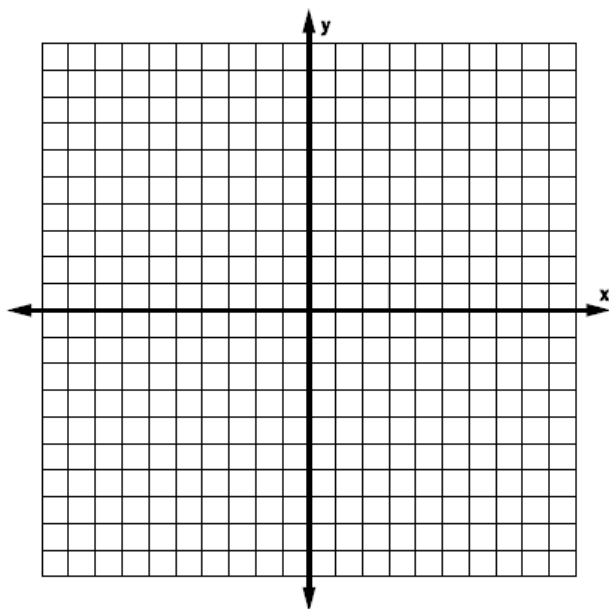


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Graph the equation.

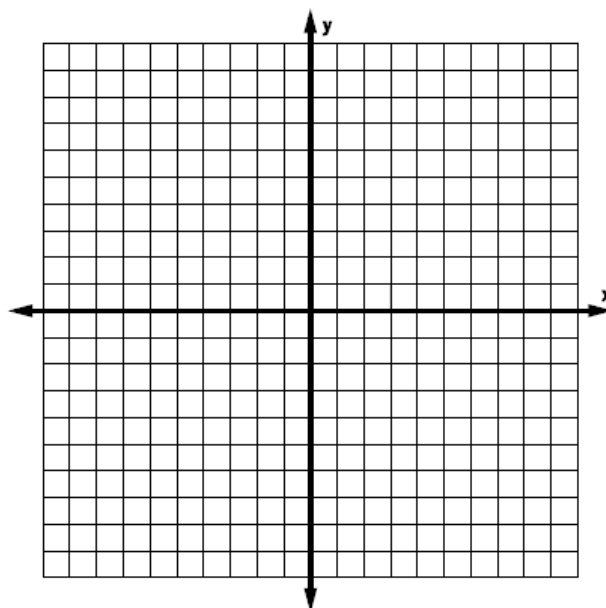
10. $(x + 5)^2 + (y - 7)^2 = 25$



Graph the circle $(x - 4)^2 + (y + 2)^2 = 16$ and the line having the given equation. Determine whether the line is a tangent or a secant. Explain.

11. $y = 2$

12. $y = -x + 6$



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13. _____ What the standard form of the equation of a circle with center $(-3, 1)$ and radius 2?

A) $(x - 3)^2 + (y - 1)^2 = 2$

B) $(x + 3)^2 + (y - 1)^2 = 2$

C) $(x - 3)^2 + (y - 1)^2 = 4$

D) $(x + 3)^2 + (y - 1)^2 = 4$

14. _____ The center of a circle is $(-3, 0)$ and its radius is 5. Which point does *not* on the circle?

A) $(2, 0)$

B) $(0, 4)$

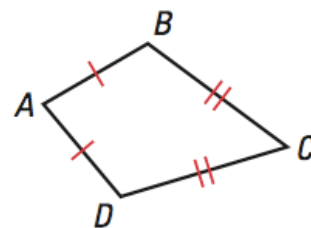
C) $(-3, 0)$

D) $(-3, -5)$

E) $(-8, 0)$

Review

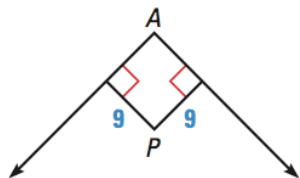
15. What kind(s) of quadrilateral could ABCD be? ABCD is not drawn to scale (Chapter 6 section 6)



16. Write the component form of vector \overrightarrow{PQ} . Use the component form to find the magnitude of \overrightarrow{PQ} to the nearest tenth: $P(5, 6)$, $Q = (-3, 7)$ (Chapter 9 Section 7)

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17. Do P lie on the angle bisector of $\angle A$. Explain your reasoning.



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